

Remarks

Examiner Smetana is thanked for the thorough Office Action.

In the Claims

The claims have not been amended.

Claim Rejections

The Rejection Of Claims 1 To 18 Under 35 U.S.C. §103(a) as Being Unpatentable Over Sasaki et al. (U.S. Patent 5,770,095) In View Of Ng et al. *Synthesis of Some Carbonyl Derivatives of BTA and Determination of Their Inhibitive Properties for Copper in 3% NaCl Solution*, Corrosion Science and Protection Technology, Vol. 9 (3), July 1997, pp. 201-204

The rejection of claims 1 to 18 under 35 U.S.C. §103(a) as being unpatentable over Sasaki et al. (U.S. Patent 5,770,095) (the '095 Sasaki Patent) in view of Ng et al. *Synthesis of Some Carbonyl Derivatives of BTA and Determination of Their Inhibitive Properties for Copper in 3% NaCl Solution*, Corrosion Science and Protection Technology, Vol. 9 (3), July 1997, pp. 201-204 (the Ng Article) is acknowledged.

Applicants' wish to briefly point up the claimed limitations of their invention which are believed to be not shown nor obvious from the teachings of known

references in this field. The independent claims all clearly define polishing a metal layer having recessed portions using a slurry including a polishing agent containing: a chemical agent including at least a carbonyl derivative of benzotriazole, the chemical agent forming a protective film on the surface of the metal layer; and an etching agent for etching the metal layer.

The '095 Sasaki Patent describes a CMP metal polishing method using a slurry including a polishing agent containing: a chemical agent including a benzotriazole that forms a protective film on the surface of the metal layer; and an etching agent of H_2O_2 , HF and an amino acid for etching the metal layer.

The Ng Article describes seven (7) types of carbonyl derivatives of benzotriazole (BTA).

However, as noted by the Examiner, the '095 Sasaki Patent does not disclose using a chemical agent including a carbonyl derivative of benzotriazole and while the Ng Article describes carbonyl derivatives of benzotriazole there is no teaching to combine these references. Sasaki specifically teaches using "BTA [benzotriazole], a BTA derivative such as a derivative prepared *by substituting a hydrogen atom of a BTA benzene ring with a methyl group*, and a mixture containing the aforementioned compounds are particularly effective when Cu or a Cu alloy is employed as the material containing a metal as a main component." Col. 3, lines 57 to 62.

Therefore independent claims 1, 8 and 14 distinguish over the '095 Sasaki Patent in view of the Ng Article under §103(a) for the above reasons and further, the prior art lack a suggestion that the reference should be modified in a manner required to meet the claims; up to now those skilled in the art never appreciated the advantage of the invention, although it is inherent; the Examiner has not presented a convincing line of reasoning as to why the claimed subject matter as a whole, including its differences over the prior art, would have been obvious; the prior art references do not contain any suggestions (express or implied) that they be combined, or that they be combined in the manner suggested; and each reference is complete and functional in itself, so there would be no reason to use parts from or add or substitute parts to any reference.

no reason to combine

Claims 2 to 7 depend from independent claim 1; claims 9 to 13 depend from independent claim 8; and claims 15 to 18 depend from independent claim 14; and are believed to distinguish over the combination for the reasons previously cited.

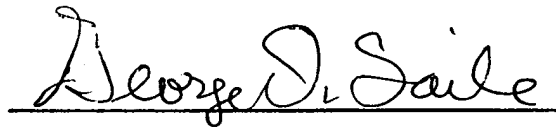
Therefore claims 1 to 18 are submitted to be allowable over the cited references and reconsideration and allowance are respectfully solicited.

CONCLUSION

In conclusion, reconsideration and withdrawal of the rejections are respectively requested. Allowance of all claims is requested. Issuance of the application is requested.

It is requested that the Examiner telephone Stephen G. Stanton, Esq. (#35,690) at (610) 296 - 5194 or the undersigned attorney/Stephen B. Ackerman, Esq. (#37,761) at (845) 452 - 5863 if the Examiner has any questions or issues that may be resolved to expedite prosecution and place this Application in condition for Allowance.

Respectively submitted,

A handwritten signature in cursive script, reading "George O. Saile", is written over a horizontal line.

George O. Saile

Reg. No. 19,572